CLAIMS

What we claim is:

1. A method for treating edema comprising the step of:

administering a therapeutically effective amount of a diuretic condensation aerosol to a person with edema, wherein the step of administering comprises the step of administering an orally inhalable diuretic condensation aerosol to the person with edema.

2. The method of claim 1 wherein the edema is associated, at least in part, with a cause selected from the group consisting of congestive heart failure, cirrhosis of the liver, poor blood circulation, lymphatic system failure, chronic nephritis, malnutrition, preeclampsia, use of birth control pills, premenstrual syndrome, sunburn, hypertension, Meniere's disease, glaucoma, cystic fibrosis, and an imbalance of sodium and potassium.

3. The method of claim 1 wherein the diuretic condensation aerosol comprises a diuretic selected from the group consisting of bumetanide, ethacrynic acid, muzolimine, spironolactone, triamterene, tripamide, BG 9928, and BG 9719.

4. The method of claim 3 wherein the diuretic is bumetanide.

5. The method of claim 1 wherein the diuretic condensation aerosol has a MMAD in the range of about 1-3 μm.

6. The method of claim 1 wherein the diuretic achieves a C_{max} in 10 minutes or less after the step of administering the aerosol.

7. The method of claim 1 wherein the step of administering the diuretic condensation aerosol comprises the step of administering the diuretic condensation aerosol in a single inhalation.

8. The method of claim 1 wherein the step of administering the diuretic condensation aerosol comprises the step of administering the diuretic condensation aerosol in more than one inhalation.

9. A method for forming a diuretic condensation aerosol comprising the steps of:

providing a diuretic composition; and

vaporizing the diuretic composition, wherein the step of vaporizing the diuretic composition comprises the step of heating the composition to form a vapor.

10. The method of claim 9 wherein the diuretic composition comprises a diuretic selected from the group consisting of bumetanide, ethacrynic acid, furosemide, muzolimine, spironolactone, torsemide, triamterene, tripamide, BG 9928, and BG 9719.

11. The diuretic condensation aerosol of claim 10 wherein the diuretic is bumetanide.

12. The method of claim 9 wherein the diuretic composition further comprises a pharmaceutically acceptable excipient.

13. A diuretic condensation aerosol comprising:

diuretic condensation aerosol particles, wherein the condensation aerosol particles comprise a diuretic selected from the group consisting of bumetanide, ethacrynic acid, muzolimine, spironolactone, triamterene, tripamide, BG 9928, and BG 9719 and wherein the diuretic condensation aerosol has a MMAD in the range of about 1-3 μm.

14. The diuretic condensation aerosol of claim 13 wherein the diuretic is bumetanide.

15. The diuretic condensation aerosol of claim 13 wherein the aerosol comprises at least 50% by weight of diuretic condensation particles.

16. The diuretic condensation aerosol of claim 13 wherein the aerosol is substantially free of thermal degradation products.

17. A kit for delivering a diuretic condensation aerosol comprising:

a composition comprising a diuretic compound in a unit dose form; and

a device for forming a diuretic aerosol, wherein the device for forming a diuretic aerosol comprises an element configured to heat the composition to form a vapor, an element allowing the vapor to condense to form a condensation aerosol, and an element permitting a user to inhale the condensation aerosol.

18. The kit of claim 17 wherein the composition further comprises a pharmaceutically acceptable excipient.

19. The kit of claim 17 wherein the diuretic compound is selected from the group consisting of bumetanide, ethacrynic acid, furosemide, muzolimine, spironolactone, torsemide, triamterene, tripamide, BG 9928, and BG 9719.

20. The kit of claim 19 wherein the diuretic is bumetanide.

21. A method for treating edema comprising the step of:

administering a therapeutically effective amount of a diuretic aerosol to a person with edema,

wherein the diuretic aerosol comprises a diuretic compound and has a MMAD in the range of about 1-3 μm, and

wherein a peak plasma level of at least 30 ng/mL of the diuretic compound is achieved within 10 minutes of administration, and

wherein the step of administering comprises the step of administering an orally inhalable diuretic aerosol to the person with edema.

22. The method of claim 21 wherein the diuretic compound is a loop diuretic.

23. The method of claim 22 wherein the diuretic compound is bumetanide.

24. The method of claim 21 wherein the edema is associated, at least in part, with congestive heart failure.

25. The method of claim 21 further comprising the steps of:

obtaining a weight measurement of the person with edema prior to the step of administering a therapeutically effective amount of a diuretic aerosol; and

using the weight measurement to assess whether to administer a therapeutically effective amount of a diuretic aerosol.

26. A method for treating congestive heart failure exacerbation comprising the step of:

administering a therapeutically effective amount of a loop diuretic condensation aerosol to a person with congestive heart failure exacerbation, wherein the step of administering comprises the step of administering an orally inhalable diuretic condensation aerosol to the person with congestive heart failure exacerbation.

27. The method of claim 26, wherein the loop diuretic condensation aerosol comprises a loop diuretic selected from the group consisting of bumetanide, ethacrynic acid, torsemide, and furosemide.

28. The method of claim 26, wherein the loop diuretic condensation aerosol has a MMAD in the range of about 1-3 μm.

29. The method of claim 26 wherein the loop diuretic achieves a C_{max} in 10 minutes or less after the step of administering the aerosol.

30. The method of claim 26 wherein the step of administering the loop diuretic condensation aerosol comprises the step of administering the loop diuretic condensation aerosol in a single inhalation.

31. The method of claim 26 wherein the step of administering the diuretic condensation aerosol comprises the step of administering the diuretic condensation aerosol in more than one inhalation.